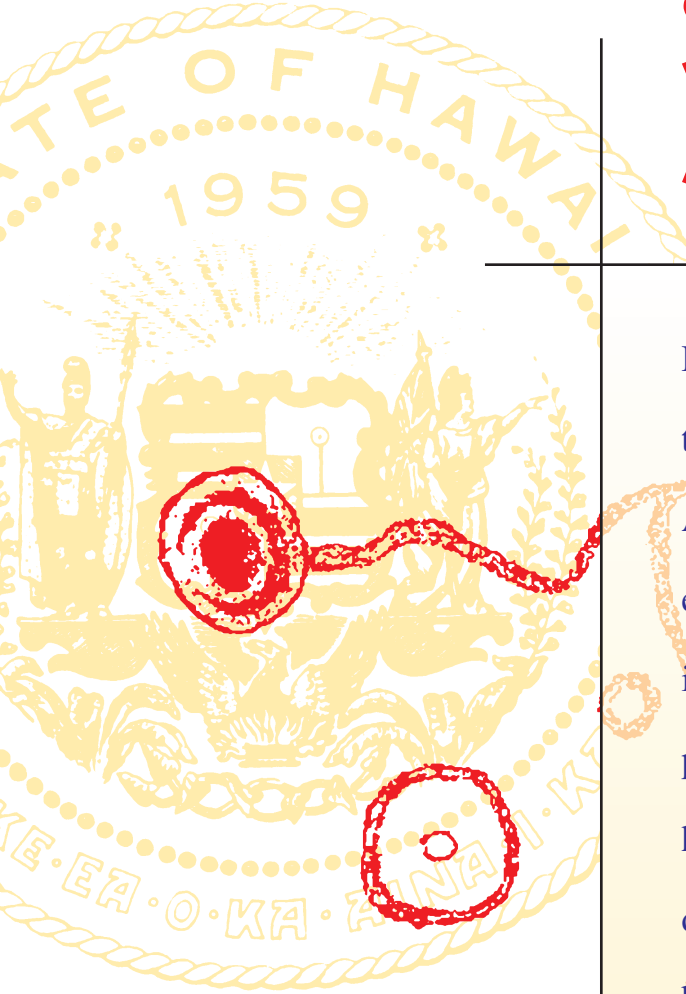


COMMISSION ON WATER RESOURCE MANAGEMENT



Drinking water is arguably the most important natural resource in the State of Hawai'i. A reliable supply of water is considered essential for our economic growth and stability. The protection and preservation of this precious resource is directly linked to the health, welfare and quality of life for all residents of the state. However, the state is just beginning on the road to assuring sustainability of our islands' limited water resources.

Hawai'i's drinking water is among the purest in the world. It begins high in the Hawaiian rain forests where heavy vegetation

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cushions the fall of raindrops and allows water to seep into the ground, to be stored behind natural dikes of impermeable rock or to accumulate in perched aquifers above layers of dense lava. Lower down toward sea level, an underground lens of fresh water can be tapped by artesian wells. Hawaiian rain forests are a living purifier, and the watershed they preserve is a priceless legacy which needs to be protected with care for the future generations of Hawai'i.

In modern Hawai'i, a growing population places an increasing demand on stream water and groundwater sources. All life depends upon water — from the goby and the 'opae and the damselfly, to human beings. As DLNR faces the water management challenges of the next century, availability of water is becoming the critical factor in the sustainability and growth of life, on every island, and both in and out of the streams.

Recognizing the importance of managing our state's water resources, the State Water Code (Chapter 174C, Hawai'i Revised Statutes) was enacted by the Legislature in 1987. The responsibility for ensuring the availability and quality of water in the state rests

with the Commission on Water Resource Management (Commission). The Commission is the regulating government agency responsible for administration of Hawai'i's State Water Code, which includes allocation of water in designated water management areas.

In carrying out these duties, the Commission is responsible for setting overall water conservation, quality and use policies; providing for the beneficial and reasonable use of water; protecting and sustaining ground and surface water resources, watersheds, and natural stream environments; establishing criteria for water use priorities while assuring appurtenant rights and existing correlative and riparian uses; and instituting procedures for regulating and managing all uses of Hawai'i's water resources.

HIGHLIGHTS**WAIĀHOLE DITCH CONTESTED CASE HEARING**

In January 1995, the Commission ordered a combined contested case hearing on the water use permit applications, petitions to amend the interim instream flow standards, and requests for reservations of water

related to the Waiāhole Ditch system on O'ahu. The evidentiary portion of the Waiāhole Ditch Contested Case Hearing, which began in November 1995, continued to August 21, 1996. In that period there were 52 days of hearings, including four evening sessions. The 25 parties presented written testimony from 161 witnesses, of which 140 testified orally. There were 567 exhibits introduced into evidence. Closing arguments were presented from September 18 to 20, 1996.

On July 15, 1997, the Commission issued a proposed findings of fact, conclusions of law, and proposed decision and order in the case. The decision proposed to establish new interim instream flow standards and supplemental flows to protect windward streams, and proposed to authorize sufficient water to meet the present and future water needs of leeward diversified agriculture. The parties were given the opportunity to file written exceptions to the proposed decision and order. The Commission heard oral arguments on the written exceptions on August 22, 1997.

The Commission issued the final findings of fact, conclusions of law, and decision and order on December 24, 1997. In conjunction with



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the decision and order, the Commission established several technical advisory committees to address a number of continuing issues involving windward streams and other Waiāhole -related issues.

‘EWA MARINA CONTESTED CASE HEARING

In December 1994, the Commission determined that there was sufficient reason to hold a contested case hearing for the ‘Ewa Marina project on O‘ahu. Parties were determined in February 1996, and the hearings were held by hearing officer Robert Nakata in October and November 1996. Proposed findings of fact, conclusions of law, and decisions and orders were filed by the parties in December 1996. Closing oral arguments were presented in February 1997. The hearing officer distributed his proposed findings of fact, conclusions of law, and decision and order in April 1998. The parties filed exceptions to the proposed decision and order in May 1998. Oral arguments before the Commission were scheduled for July 1998, but the parties waived their oral argument privileges.

LĀ‘IE CONTESTED CASE HEARING

The Commission, in February 1996, approved holding a contested case hearing on water use permit applications submitted by Hawai‘i Reserves, Inc., Lā‘ie Water Co. Inc., and Polynesian Cultural Center. In April 1996, Commissioners Herbert M. Richards, Jr. and Robert G. Girald were designated as hearing officers to preside over the hearing. A hearing to determine standing was held in early June 1996, and in mid-June 1996, Minute Order Number 1 was issued granting intervenor status to 23 parties.

The contested case hearing was convened on January 14, 1997, and was continued over 12 hearing days, concluding on March 14, 1997. The parties filed their proposed findings of fact, conclusions of law, and proposed decision and order in June 1997. The hearing officers issued their proposed decision and order on January 14, 1998. Written exceptions to the hearing officers’ proposed decision and order were filed by the parties on February 27, 1998. Oral arguments on the written exceptions to the proposed decision and order were heard on October 16, 1998.

WAIOLA CONTESTED CASE HEARING

On January 25, 1996, the water use, well construction, and pump installation permit applications for 1.25 million gallons per day (mgd) for Waiola O Moloka‘i and Moloka‘i Ranch, Ltd. (Waiola) in the Kamiloloa Aquifer System were accepted by the Commission as complete. On May 21, 1996, Commission staff recommended approval of a water use permit for the proposed Kamiloloa-Waiola Well (Well No. 0759-01) for the reasonable-beneficial use of 0.33 mgd for existing uses and proposed future uses.

On October 3, 1996, the Department of Hawaiian Home Lands (DHHL) filed a timely petition for a contested case hearing on the water use, well construction, and pump installation permit applications for the Kamiloloa-Waiola Well. At its October 23, 1996 meeting, the Commission determined that there was sufficient standing for DHHL and began proceedings for a contested case hearing. On April 15, 1997, Commissioner Richard H. Cox was appointed as hearing officer for the contested case. On April 29, 1997, hearing officer Cox held a hearing

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on Moloka'i to determine which of the applicants, who timely applied, in addition to Waiola and DHHL, would be allowed to participate in the contested case hearing. On May 14, 1997, the Commission, upon the recommendation of hearing officer Cox, granted standing to the following: Office of Hawaiian Affairs, County of Maui, four individuals within the Kamiloloa Aquifer System who have some property interest in the land or who lawfully reside on the land, and twelve individuals who claim traditional and customary rights of ahupua'a tenants who are descendants of native Hawaiians who inhabited the Hawaiian Islands prior to 1778.

The contested case hearing opened October 27, 1997 in Kaula, Moloka'i at the Moloka'i Civic Center, and continued through that week to October 31, 1997, and continued on November 14 and 21, 1997 for a total of 7 hearing days. On November 21, 1997, all parties presented their closing oral arguments. The hearing officer's proposed findings of fact, conclusions of law, and proposed decision and order was distributed to the parties on August 19, 1998.

KUKUI CONTESTED

CASE HEARING

On December 15, 1993, Kukui (Moloka'i), Inc. (KMI) submitted an amended application for existing uses and projected demands at its west-end resort area. On March 14, 1995, the Commission voted to approve the issuance of an interim water use permit for KMI for the continued existing use of 871,420 gallons per day. On April 6, 1995, KMI submitted a motion for reconsideration of the Commission's March 14, 1995 decision.

On June 14, 1995, the Commission voted to deny KMI's motion to reconsider and reaffirmed their March 14, 1995 decision. On May 21, 1996 the Commission denied a submittal recommendation to approve an increased total of 1.045 mgd from Well 17 for existing uses based on updated information. KMI requested a contested case hearing. On April 16, 1997, the Commission found that KMI had standing to request a contested case hearing, directed staff to initiate such a hearing, and delegated to the Chairperson the authority to appoint a hearing officer. On April 24, 1997, Peter Adler was appointed as hearing officer for the case. On June 24, 1998, prehearing conference #1 was held.

As DLNR faces the water management challenges of the next century, availability of water is becoming the critical factor in the sustainability and growth of life, on every island, and both in and out of the stream.



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The contested case hearing was scheduled to begin in November 1998.

The following are program descriptions and accomplishments for FYs 1996-1997 and 1997-1998:

BASIC DATA COLLECTION AND RESOURCE ASSESSMENT

PROGRAM DESCRIPTION

In order for the Commission to make informed decisions and create effective plans, it is important to collect, analyze, and disseminate data regarding climate, groundwater and stream flow. Groundwater computer modeling is used to understand selected aquifers (groundwater storage areas). The cooperative program with the U.S. Geological Survey (USGS) provides basic data and analysis on stream flows, groundwater levels, and water quality. Nearly 200 volunteer rainfall observers and the National Weather Service (NWS) provide rainfall and other climatic data statewide. In addition, water users throughout the state submit information on wells, stream diversions, and water use amounts.

The Commission staff, on a monthly basis, monitors specialized

groundwater networks in critical areas in the state by conducting hydrologic investigations to better understand the occurrence and characteristics of the resource. The Commission's statewide monitoring efforts are essential to its regulation and management of our state's water resources especially with regard to monitoring potential threat of salt-water intrusion from current and future groundwater withdrawals.

PROGRAM ACCOMPLISHMENTS, FY 1996-97 AND FY 1997-98 COMBINED.

- Increased monitoring and data collection efforts leading to early recognition of potential aquifer impacts and the successful implementation of proactive steps to protect and sustain Maui's 'Īao Aquifer System, O'ahu's Pearl Harbor and Honolulu Aquifer Sectors, and the 'Ewa Caprock Aquifer, West Hawai'i's aquifer systems, and the entire island of Lāna'i.
- Initiated site selection, planning, and design of four deep monitor wells on the islands of O'ahu, Maui, and Hawai'i. Two of the wells are in the Kailua-Kona region, Hawai'i, one is in Lahaina, Maui, and the fourth is in the Pearl Harbor area, O'ahu.
- Construction of these monitor wells will provide for collection and evaluation of hydrologic and geologic information, including the reaction of the basal and caprock aquifer from groundwater pumpage.
- Developed a new approach towards defining and assessing sustainable yields for the non-potable 'Ewa Caprock Aquifer using chloride limits rather than pumpage limits.
- Continued monthly sampling of chloride levels in water from wells in the 'Ewa caprock aquifer (an aquifer containing brackish groundwater), O'ahu.
- Continued to collect water level data on a quarterly basis from 25 wells located in South Kohala and Kona, Hawai'i island.
- Continued to log 3 deep monitor wells on O'ahu and 1 on Maui, on a quarterly basis. In addition to water sampling at discrete intervals within these monitor wells, the Commission's staff recently began using a new conductivity/temperature sonde (testing device) for continuous bore-hole logging.
- Continued groundwater data collection in the Lahaina region on Maui on a semi-annual basis.



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- Continued the use of electronic data loggers in the collection of groundwater data.
- Continued to monitor rainfall, using electronic recording gauges in remote watershed areas, to determine rainfall characteristics and estimate how much water reaches Hawai'i's aquifers.
- Continued to update the rainfall databases.
- Completed the survey of appurtenant water rights; a study to assist the public in establishing an appurtenant water rights claim.
- Continuing a joint study with the USGS and Maui Department of Water Supply of the surface water/ groundwater interaction in the East Maui region.
- Continued the development of a computer groundwater model for Lāhainā, Maui with the USGS.
- Completed a cooperative geomorphic study of the Waiāhole and Waianu streams in windward O'ahu with the USGS.
- Completed the analysis of aquifer test data in Punalu'u, O'ahu.
- Continue to analyze aquifer test data submitted by well owners using computer techniques.
- In conjunction with the USGS, the Commission recently com-

pleted a preliminary re-evaluation of the sustainable yields for the 'Ewa-Kunia and Waipahu-Waiawa Aquifer Systems of the Pearl Harbor Sector Water Management Area using numerical modeling. This effort has led to the early identification of potential long-term impacts to existing wells. Early recognition and mitigation of these impacts will lead to greater optimization of our resources.

- Completed implementation of Geographical Information System (GIS) capability to assess, analyze, and more effectively manage our state's water resources. As part of this enhanced GIS capability, Commission staff have provided drafting, mapping, and other GIS-related services in support of other departmental programs.

WATER RESOURCE PLANNING

PROGRAM DESCRIPTION

The Commission implements and utilizes comprehensive water resources planning in its regulation and management of our state's water resources. The Commission's water resource planning function

plays an important part in sustaining Hawai'i's water resources. The water code sets forth the requirement for development of the Hawai'i Water Plan (HWP) to guide the Commission in executing its general powers, duties, and responsibilities to assure economic development, good municipal services, agricultural stability, and environmental protection.

Through continual updating and refinement, the Hawai'i Water Plan will become the living document for long-range protection, conservation, and management of Hawai'i's water resources. Recognizing the complexities associated with planning, regulation, and management of our water resources, the Commission is working to develop a Statewide Framework for Integrated Resource Planning (IRP). The framework will provide for coordination and guidance in updating and integrating the various components of the Hawai'i Water Plan.

Implementation of an IRP process will facilitate current planning and decision-making processes administered by the state and counties, and will enable agencies to set priorities and develop appropriate strategies to meet the state's growing water demands.



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PROGRAM ACCOMPLISHMENTS, FY 1996-97 AND FY1997-98 COMBINED.

- Continued the updating and refinement of the Hawai'i Water Plan in coordination with the counties.
- Continued partnership with the City and County of Honolulu and the State Department of Health to support the reuse of wastewater effluent in the 'Ewa plain region on O'ahu. Participated in inter-agency planning sessions to develop a Non-Potable Water Master Plan for central O'ahu in cooperation with the City and County of Honolulu and other federal and state agencies.
- Developed a conceptual stream assessment methodology to identify and prioritize high quality streams. The draft Multi-Attribute Prioritization of Streams (MAPS) study will facilitate the Commission's efforts in the designation and management of potential Heritage Streams statewide and in the development of a statewide stream database.
- Conducted statewide public hearings on proposed amendments to HAR Chapter 13-169 (Protection of Instream Uses of Water) to establish a program for designa-

tion and protection of high quality streams and HAR Chapter 13-172 (Hawaiian Water Rights) to establish a framework governing the practice/procedures for protecting water-related rights. Public comments are being evaluated for incorporation, and additional public hearings may be scheduled on the proposed amendments. Adoption of these amendments will enhance program efforts and further clarify the standing qualifications for objections and contested case hearings.

- Continued participation in the Moloka'i and Lāna'i Water Working Groups to discuss and mediate water issues affecting each island. Similar community-based 'round-table' groups on Maui and Hawai'i islands have formed to address water issues on a less formal basis. Commission staff have facilitated both of these efforts by providing technical and resource data to these groups. Agreements reached as a result of the working groups have minimized the potential for contested case hearings on water-related matters, and the 'round-table' groups provide a proactive approach for local water management.

REGULATION OF WATER RESOURCES

PROGRAM DESCRIPTION

Through regulation, the Commission strives to maintain sustainability of Hawai'i's water resources. The staff process applications and make recommendations to the Commission for the issuance of well construction, pump installation, stream channel alteration, stream diversion works, and water use permits throughout the state. The State Water Code allows for the Commission to establish administrative control over the withdrawal of groundwater and diversion of surface water in streams and critical water management areas. The State Water Code also protects instream uses including aquatic and stream-based wildlife habitat, recreation, aesthetics, and hydropower.

PROGRAM ACCOMPLISHMENTS, FY 1996-97 AND FY1997-98 COMBINED.

- In January 1997, the Commission adopted the Hawai'i Well Construction and Pump Installation Standards so that all new wells drilled and well pumps installed in the state are subject to minimum standards for the protection and optimization of the aquifer systems.



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- Levied over \$500,000 in fines and/or alternatives to fines for violations of the State Water Code.
- Continued to meet and work with working groups on Maui, Lānaʻi, and Hawaiʻi who are attempting to develop water use and development plans.
- Developed a management plan to restore Hakalaoa Falls in Waipiʻo Valley, Hawaiʻi. As part of the proposed restoration plans, the Commission issued an order to Kamehameha Schools Bishop Estate to remove an illegal diversion, that would restore Hiʻilawe falls by Dec. 1, 1999.
- Developed and implemented the following streamlining procedures:
 - 1) Delegation of well construction and most pump installation permit approvals to the Chairperson of the Commission;
 - 2) Exemption of temporary, small diameter wells constructed to monitor water quality or other types of chemical contaminants;
 - 3) Implementation of a streamlined well permit review process involving state and county agencies;
 - 4) Establishment of a concurrent permit review process for well construction and pump installation permits;
 - 5) Adoption of standardized well construction requirements; and
 - 6) Preliminary identification of criteria which may be used to facilitate the review and processing of petitions to amend existing interim instream flow standards.
- Established, by declaratory rulings, expedited review for certain permits. These rulings include:
 - 1) Delegation of approval to the Chairperson for Stream Channel Alteration Permits (SCAP) authorizing the installation of stream monitoring gauges which meet certain stream alteration/construction criteria;
 - 2) Delegation of approval to the Chairperson for certain water use permit modifications and requests for SCAP-related time extensions;
 - 3) Defined stream channel areas in flood plains subject to SCAP regulation; and
 - 4) The Commission has also completed discussions with the City and County of Honolulu's Department of Public Works in order to implement an expedited permit review process for SCAP approvals for routine stream maintenance/clearing under certain conditions.
- Continued monitoring of pumpage data and instituted partial and continuing revocation of unused groundwater to make water available for future uses.
- A total of 83 applications for stream channel alteration permits, 300 applications for well construction or pump installation permits, and 161 applications for water use in designated groundwater management areas were reviewed and acted upon by the Commission. All of these permit applications have had to undergo various levels of staff review and field verifications prior to formal issuance of permits by the Commission.

ENFORCEMENT AND TECHNICAL SUPPORT SERVICES

PROGRAM DESCRIPTION

The Commission continues to provide technical field and office services in support of other State Water Code programs and activities. This function includes the investigation of water-related complaints and disputes, enforcement of rules and standards, and the monitoring of permitted activities. Emphasis is placed on field verification of reported water uses from groundwater and surface water sources in critical areas of the state.

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PROGRAM ACCOMPLISHMENTS, FY 1996-97 AND 1997-98 COMBINED.

- Completed field inspections to verify registered groundwater sources, declared water uses, and applicants for water use permits in key groundwater management areas on the islands of O‘ahu and Moloka‘i. For those sources verified, the Commission also prepared and issued certificates of water use for existing registered sources and uses on Moloka‘i.
- Developed and implemented a dispute resolution process that has resulted in the resolution of several water-related disputes thereby minimizing the need to enter into contested case proceedings. The Commission continues to refine its dispute resolution process to facilitate outcome of water-related disputes and the reaching of mediated agreements. A total of 27 out of 59 water-related complaints were investigated and acted upon by the Commission staff, the balance of which are still under various stages of review and/or resolution.
- Continued to conduct field inspections to verify registered groundwater sources, declared water uses, and applicants for water use permits. Field work was focused within groundwater management areas on O‘ahu and Moloka‘i.
- Continued to provide technical assistance in monitoring and collecting groundwater data from selected wells statewide.
- Continued to provide drafting, mapping, and GIS services in support of Commission programs.

